

DT03 Rec'd PCT/PTO 05 NOV 2004 Pct

PTO/SB/21 (09-04)

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**TRANSMITTAL  
FORM**

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

Application Number	10/500,884
Filing Date	July 7, 2004
First Named Inventor	Richard Compans
Art Unit	Not yet assigned
Examiner Name	Not yet assigned
Attorney Docket Number	EU 01083

**ENCLOSURES (Check all that apply)**

<input checked="" type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement  <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/ Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): 9 pages of PTO-1449; 87 references; return postcard
<b>Remarks</b>		

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

Firm Name	Pabst Patent Group LLP		
Signature			
Printed name	Tiffany B. Salmon		
Date	November 3, 2004	Reg. No.	55,589

**CERTIFICATE OF TRANSMISSION/MAILING**

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

Signature			
Typed or printed name	Ronna Berman	Date	November 3, 2004

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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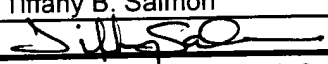
EU 01083 / 077113-00006

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**01 PAPERWORK REDUCTION ACT**  
**FEE TRANSMITTAL**  
**for FY 2005**  
Effective 10/01/2004. Patent fees are subject to annual revision.  
☒ Applicant claims small entity status. See 37 CFR 1.27  
**TOTAL AMOUNT OF PAYMENT (\$)** 0.00

**Complete if Known**

Application Number	10/500,884
Filing Date	July 7, 2004
First Named Inventor	Richard Compans
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METHOD OF PAYMENT (check all that apply)		FEE CALCULATION (continued)																																																																																																																																																																																			
<input type="checkbox"/> Check <input type="checkbox"/> Credit card <input type="checkbox"/> Money Order <input type="checkbox"/> Other <input type="checkbox"/> None <input checked="" type="checkbox"/> Deposit Account: Deposit Account Number: 50-3129 Deposit Account Name: Pabst Patent Group LLP The Director is authorized to: (check all that apply) <input checked="" type="checkbox"/> Charge fee(s) indicated below <input checked="" type="checkbox"/> Credit any overpayments <input checked="" type="checkbox"/> Charge any additional fee(s) or any underpayment of fee(s) <input type="checkbox"/> Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.		<b>3. ADDITIONAL FEES</b> <table><thead><tr><th colspan="2">Large Entity</th><th colspan="2">Small Entity</th><th rowspan="2">Fee Description</th><th rowspan="2">Fee Paid</th></tr><tr><th>Fee Code</th><th>Fee (\$)</th><th>Fee Code</th><th>Fee (\$)</th></tr></thead><tbody><tr><td>1051</td><td>130</td><td>2051</td><td>65</td><td>Surcharge - late filing fee or oath</td><td></td></tr><tr><td>1052</td><td>50</td><td>2052</td><td>25</td><td>Surcharge - late provisional filing fee or cover sheet</td><td></td></tr><tr><td>1053</td><td>130</td><td>1053</td><td>130</td><td>Non-English specification</td><td></td></tr><tr><td>1812</td><td>2,520</td><td>1812</td><td>2,520</td><td>For filing a request for ex parte reexamination</td><td></td></tr><tr><td>1804</td><td>920*</td><td>1804</td><td>920*</td><td>Requesting publication of SIR prior to Examiner action</td><td></td></tr><tr><td>1805</td><td>1,840*</td><td>1805</td><td>1,840*</td><td>Requesting publication of SIR after Examiner action</td><td></td></tr><tr><td>1251</td><td>110</td><td>2251</td><td>55</td><td>Extension for reply within first month</td><td></td></tr><tr><td>1252</td><td>430</td><td>2252</td><td>215</td><td>Extension for reply within second month</td><td></td></tr><tr><td>1253</td><td>980</td><td>2253</td><td>490</td><td>Extension for reply within third month</td><td></td></tr><tr><td>1254</td><td>1,530</td><td>2254</td><td>765</td><td>Extension for reply within fourth month</td><td></td></tr><tr><td>1255</td><td>2,080</td><td>2255</td><td>1,040</td><td>Extension for reply within fifth month</td><td></td></tr><tr><td>1401</td><td>340</td><td>2401</td><td>170</td><td>Notice of Appeal</td><td></td></tr><tr><td>1402</td><td>340</td><td>2402</td><td>170</td><td>Filing a brief in support of an appeal</td><td></td></tr><tr><td>1403</td><td>300</td><td>2403</td><td>150</td><td>Request for oral hearing</td><td></td></tr><tr><td>1451</td><td>1,510</td><td>1451</td><td>1,510</td><td>Petition to institute a public use proceeding</td><td></td></tr><tr><td>1452</td><td>110</td><td>2452</td><td>55</td><td>Petition to revive - unavoidable</td><td></td></tr><tr><td>1453</td><td>1,330</td><td>2453</td><td>665</td><td>Petition to revive - unintentional</td><td></td></tr><tr><td>1501</td><td>1,370</td><td>2501</td><td>685</td><td>Utility issue fee (or reissue)</td><td></td></tr><tr><td>1502</td><td>490</td><td>2502</td><td>245</td><td>Design issue fee</td><td></td></tr><tr><td>1503</td><td>660</td><td>2503</td><td>330</td><td>Plant issue fee</td><td></td></tr><tr><td>1460</td><td>130</td><td>1460</td><td>130</td><td>Petitions to the Commissioner</td><td></td></tr><tr><td>1807</td><td>50</td><td>1807</td><td>50</td><td>Processing fee under 37 CFR 1.17(q)</td><td></td></tr><tr><td>1806</td><td>180</td><td>1806</td><td>180</td><td>Submission of Information Disclosure Stmt</td><td></td></tr><tr><td>8021</td><td>40</td><td>8021</td><td>40</td><td>Recording each patent assignment per property (times number of properties)</td><td></td></tr><tr><td>1809</td><td>790</td><td>2809</td><td>395</td><td>Filing a submission after final rejection (37 CFR 1.129(a))</td><td></td></tr><tr><td>1810</td><td>790</td><td>2810</td><td>395</td><td>For each additional invention to be examined (37 CFR 1.129(b))</td><td></td></tr><tr><td>1801</td><td>790</td><td>2801</td><td>395</td><td>Request for Continued Examination (RCE)</td><td></td></tr><tr><td>1802</td><td>900</td><td>1802</td><td>900</td><td>Request for expedited examination of a design application</td><td></td></tr></tbody></table> Other fee (specify) _____ *Reduced by Basic Filing Fee Paid		Large Entity		Small Entity		Fee Description	Fee Paid	Fee Code	Fee (\$)	Fee Code	Fee (\$)	1051	130	2051	65	Surcharge - late filing fee or oath		1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet		1053	130	1053	130	Non-English specification		1812	2,520	1812	2,520	For filing a request for ex parte reexamination		1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action		1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action		1251	110	2251	55	Extension for reply within first month		1252	430	2252	215	Extension for reply within second month		1253	980	2253	490	Extension for reply within third month		1254	1,530	2254	765	Extension for reply within fourth month		1255	2,080	2255	1,040	Extension for reply within fifth month		1401	340	2401	170	Notice of Appeal		1402	340	2402	170	Filing a brief in support of an appeal		1403	300	2403	150	Request for oral hearing		1451	1,510	1451	1,510	Petition to institute a public use proceeding		1452	110	2452	55	Petition to revive - unavoidable		1453	1,330	2453	665	Petition to revive - unintentional		1501	1,370	2501	685	Utility issue fee (or reissue)		1502	490	2502	245	Design issue fee		1503	660	2503	330	Plant issue fee		1460	130	1460	130	Petitions to the Commissioner		1807	50	1807	50	Processing fee under 37 CFR 1.17(q)		1806	180	1806	180	Submission of Information Disclosure Stmt		8021	40	8021	40	Recording each patent assignment per property (times number of properties)		1809	790	2809	395	Filing a submission after final rejection (37 CFR 1.129(a))		1810	790	2810	395	For each additional invention to be examined (37 CFR 1.129(b))		1801	790	2801	395	Request for Continued Examination (RCE)		1802	900	1802	900	Request for expedited examination of a design application	
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<b>SUBMITTED BY</b> Name (Print/Type) Tiffany B. Salmon Signature  Registration No. (Attorney/Agent) 55,589 Telephone (404) 879-2153 Date November 3, 2004		<b>SUBTOTAL (3) (\$)</b> 0.00 (Complete if applicable)																																																																																																																																																																																			

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This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS.  
SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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EU 01083 / 077113-00006



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Richard Compans, Luigi Marzilli, Amy Sears, and Dabney Dixon

Serial No.: 10/500,884

Art Unit: Not Yet Assigned

Filed: July 7, 2004

Examiner: Not Yet Assigned

For: *PORPHYRINS WITH VIRUCIDAL ACTIVITY*

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

Sir:

Pursuant to 37 C.F.R. §1.56 and 37 C.F.R. §1.97, Applicants submit an Information Disclosure Statement, including 9 pages of Form PTO-1449 and a copy of each document cited therein.

This Information Disclosure Statement is being filed under 37 C.F.R. § 1.97(b) prior to a first Office Action on the merits. It is believed that no fee is required with this submission. However, should a fee be required, the Commissioner is hereby authorized to charge any required fees to Deposit Account No. 50-3129.

### U.S. Patents

<u>Number</u>	<u>Issue Date</u>	<u>Patentee</u>	<u>Class/Subclass</u>
4,522,811	06-11-1985	Eppstein, et al.	514/2
5,109,016	04-28-1992	Dixon, et al.	514/410
5,192,788	03-09-1993	Dixon, et al.	514/410
5,281,616	01-25-1994	Dixon et al.	514/410

### Foreign Documents

<u>Number</u>	<u>Publication Date</u>	<u>Patentee</u>	<u>Country</u>
WO99/36476	07-22-1999	Kimberly-Clark Worldwide	PCT

### Publications

ALMARSSON, et al. "Synthesis and characterization of an octacationic iron(III) tetraphenylporphyrin, which is soluble in water and non-m-oxo dimer forming" *J. Am. Chem. Soc.* 117: 4524-4532 (1995).

ARAI, et al., "Spatially close porphyrin pair linked by the cyclic peptide Gramicidin" *S. J. Chem. Soc. Chem. Commun.* 1503-1504 (1999).

ARAI, et al., "Synthesis of a membrane-spanning lipophilic porphyrin with links to two alamethicin fragments on each face" *J. Chem. Soc. Perkin Trans. 2* 1381-1390 (2000).

ARGYRIS, et al., "The connection domain is implicated in metalloporphyrin binding and inhibition of HIV reverse transcriptase" *J. Biol. Chem.* 274: 1549-1556 (1999).

ARGYRIS, et al., "Mutagenesis of key residues identifies the connection subdomain of HIV-1 reverse transcriptase as the site of inhibition by heme" *Eur. J. Biochem.* 268: 925-931 (2001).

ASANAKA, et al., "Anti-HIV activity of protoporphyrin" *AIDS* 3, 403-404 (1989).

CAROFIGLIO, et al., "Synthesis, characterization, and supramolecular properties of a hydrophilic porphyrin-beta-cyclodextrin conjugate" *J. Org. Chem.* 65: 9013-9021 (2000).

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### Remarks

This statement should not be interpreted as a representation that an exhaustive search has been conducted or that no better art exists. Moreover, Applicants invite the Examiner to make an independent evaluation of the cited art to determine its relevance to the subject matter of the present application. Applicants are of the opinion that their claims patentably distinguish over the art referred to herein, either alone or in combination.

Respectfully submitted,



Tiffany B. Salmon  
Reg. No. 55,589

Dated: November 3, 2004

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Application Number

10/500,884

Filing Date

**July 7, 2004**

**First Named Inventor**

Richard Compans

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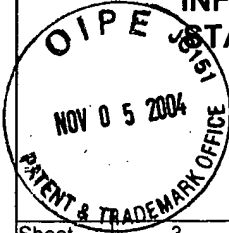
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		Filing Date	July 7, 2004
		First Named Inventor	Richard Compans
		Group Art Unit	
		Examiner Name	
		Attorney Docket Number	EU 01083
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		KIMPTON and EMERMAN, "Detection of replication-competent and pseudotyped human immunodeficiency virus with a sensitive cell line on the basis of activation of an integrated beta-galactosidase gene" <i>J. Virol.</i> 66: 2232-2239 (1992).	
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		MATTHEWS, et al., "Inactivation of viruses with photoactive compounds" <i>Blood Cells</i> 18: 75-88 (1992).	
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		MENG, et al., "Porphyrin chemistry pertaining to the design of anti-cancer drugs. Part 2. The synthesis and <i>in vitro</i> tests of water-soluble porphyrins containing, in the <i>meso</i> positions, the functional groups: 4-methylpyridinium, or 4-sulfonatophenyl, in combination with phenyl, 4-pyridyl, 4-nitrophenyl, or 4-aminophenyl" <i>Can. J. Chem.</i> 72: 2447-2457 (1994).					
		MUKUNDAN, et al., "Interactions of an electron-rich tetracationic tentacle porphyrin with calf thymus DNA" <i>Inorg. Chem.</i> 33: 4676-4687 (1994).					
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		NEURATH, et al., "Rapid prescreening for antiviral agents against HIV-1 based on their inhibitory activity in site-directed immunoassays. II. Porphyrins reacting with the V3 loop of gp120" <i>Antiviral Chem. Chemother.</i> 3: 55-63 (1992).					
		NEURATH, et al., "Rapid prescreening for antiviral agents against HIV-1 based on their inhibitory activity in site-directed immunoassays. Approaches applicable to epidemic HIV-1 strains" <i>Antiviral Chem. Chemother.</i> 4: 207-214 (1993).					
		NEURATH, et al., "Tin protoporphyrin-IX used in control of heme metabolism in humans effectively inhibits HIV-1 infection" <i>Antiviral Chem. Chemother.</i> 5: 322-330 (1994).					
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		NORTH, et al., "Viral inactivation in blood and red cell concentrates with benzoporphyrin derivative" <i>Blood Cells</i> 18: 129-140 (1992).					
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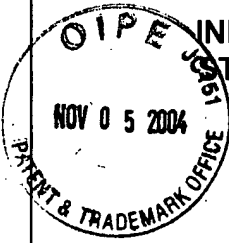
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		NORTH, et al., "Photosensitizers as virucidal agents" <i>J. Photochem. Photobiol. B</i> 17: 99-108 (1993).	
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		SHELL and HOMBRECHER, "Synthesis and investigation of glycosylated mono- and diarylporphyrins for photodynamic therapy" <i>Bioorg. Med. Chem.</i> 7: 1857-1865 (1999).	
		SEDARATI, et al., "Latent Infection Can be Established with Drastically Restricted Transcription and Replication of the HSV-1 Genome" <i>Virology</i> 192: 687-691 (1999).	
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		SOLLADIE, et al., "Synthesis of multiporphyrinic alpha-polypeptides: towards the study of the migration of an excited state for the mimicking of the natural light harvesting device" <i>Tetrahedron Lett.</i> 41: 6075-6078 (2000).	
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		VZOROV and COMPANS, "Effect of the cytoplasmic domain of the simian immunodeficiency virus envelope protein on incorporation of heterologous envelope proteins and sensitivity to neutralization" <i>J. Virol.</i> 74: 8219-8225 (2000).	
		VZOROV, et al., "Inactivation of human immunodeficiency virus type 1 by porphyrins" <i>Antimicrobial Agents and Chemotherapy</i> 46(12): 3917-3925 (2002).	

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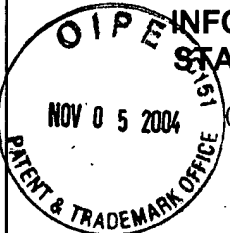
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		WEBER, et al., "'Chemical condoms' for the prevention of HIV infection: Evaluation of novel agents against SHIV(89.6PD) <i>in vitro</i> and <i>in vivo</i> " <i>AIDS</i> 15: 1563-1568 (2001).	
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		YUE, et al., "Ni(II) porphyrins binding to anionic polymers investigated by resonance Raman spectroscopy" <i>Inorg. Chem.</i> 30: 3214-3222 (1991)..	
		ZACHAROPOULOS and PHILLIPS, "Vaginal formulations of carrageenan protect mice from herpes simplex virus infection" <i>Clinical and Diagnostic Laboratory Immunology</i> 4: 465-468 (1997).	
		ZEITLIN, et al., "Tests of vaginal microbicides in the mouse genital herpes model" <i>Contraception</i> 56: 329-335 (1997).	

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